



ENG D PROGRAMME ROBOTICS

UNIVERSITY OF TWENTE.



ENG D PROGRAMME ROBOTICS

Have you finished your master's programme and are you ready for a new challenge? Would you like to keep studying and get paid while you're at it? Are you interested in technological designs and would you like to jump-start your career?

The EngD programme Robotics at the University of Twente might be just the ticket! It's a two-year post-master's programme with a focus on design.

The EngD (Engineering Doctorate) programme Robotics will educate you to develop high-quality, creative and innovative designs for complex technological issues. As a technologically designer, you will be perfectly capable in linking various disciplines and then integrating them to produce effective designs. The programme combines state-of-the-art technical expertise with professional development to result in an inspiring learning process.

THE PROGRAMME

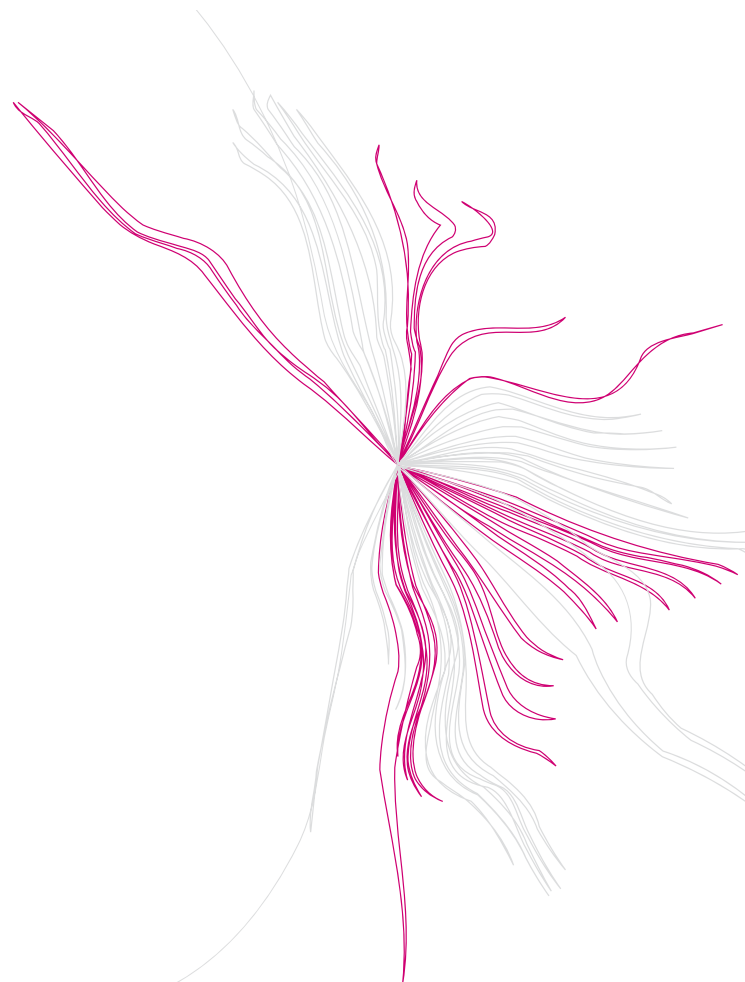
The postgraduate EngD programme combines academic research in a professional context with education in a range of related subjects. It involves coursework and culminates in a design project. As a trainee, you will be employed by the University of Twente or you will be placed at a company. During your employment you will receive a salary. The two-year programme comprises three main components: professional development, in-depth and broadening coursework and a technological design project. The educational component and the design project can be scheduled parallel or sequentially. This will be looked at with the placement company and the opportunities available at the university.

For each EngD trainee, the educational programme is tailored to the specific design project, trotted out by the company. The EngD programme is build up as follows:

1. **Professional development** (~10% of programme), including professional effectiveness, and electives such as technical writing, project management, interviewing skills, and conflict management;
2. **State-of-the-art post-graduate education** (~40% of programme), comprising generic courses such as Systems Engineering, Design Methodology, Robust Control, and courses that are focused on your design project. See www.utwente.nl/go/engd-robotics-courses for an elaborate overview of the courses;
3. **A technological design project** (~50% of programme). This project focuses on producing a design for a technological solution for the industrial sector, for maintenance and inspection or for medical use. During the design project, you will directly apply your newly acquired expertise. You will create technological innovations relevant for industry and society.

DIPLOMA AND DEGREE

You will receive a certified diploma upon successful completion of the programme. You will be entitled to use the degree Engineering Doctorate (EngD) and you will be registered as a Technological Designer in the register kept by the Royal Institute of Engineers in the Netherlands (KIVI). The quality of the programme is assured by an assessment and certification procedure carried out by the Dutch Certification Committee for Technological Designer Programmes (CCTO, Nederlandse Certificatie Commissie voor Opleidingen tot Technologisch Ontwerper).



ENG D ROBOTICS

Projects in the field of robotics are becoming more and more complex. Therefore, the market requires highly qualified robotic designers who are experts in different kind of modern robot-technological issues. Furthermore, the market requires employees who are skilled in working in a multidisciplinary design team and know how to approach complex issues and arrive at practical solutions.

The purpose of the EngD programme is to educate trainees who will be the 'new employees' in the field of robotics. The EngD programme focuses on creating technological solutions for the industrial sector (i.e. automatic welding robots), for maintenance and inspection (i.e. sewer inspection) and for medical use (like rehabilitation or surgical robotics). The programme is based on functional and market based requirements. A methodological approach, which tackles the always present uncertainties, always comes first.

The branches of the organisations where you can work are often the organisations where you do your design project. The branches of these organisations vary from large multinationals to smaller companies in the industrial, maintenance and medical sector.

STUDYING AFTER YOUR MASTER'S: ENG D OR PHD?

Although the EngD and PhD are both recognised as postgraduate titles, the EngD programme and the PhD process are not equivalent. The EngD is a practical oriented engineering doctorate which is better suited to the direct needs of industry, whereas the PhD focuses on scientific research. The three most pronounced differences between a PhD and EngD programme for you as a trainee are:

- The EngD has a duration of 2 years whereas the PhD has a duration of 4 years;
- The EngD trainee is engaged with the professional field, the PhD trainee is directly engaged with the university;
- The EngD focuses on (technological) designs, the PhD focuses on research.

To summarise: if you are an ambitious student who has completed a master's degree and would like to focus more on design and less on science, then the EngD programme Robotics might be the perfect opportunity for you!

INTERESTED?

The EngD programme is the perfect step for talented students with a master's in Robotics or a related specialisation (both national and international) who are interested in designing solutions for complex technological problems. If you would like to apply for this EngD programme, then please send us an email containing the following information and attachments:

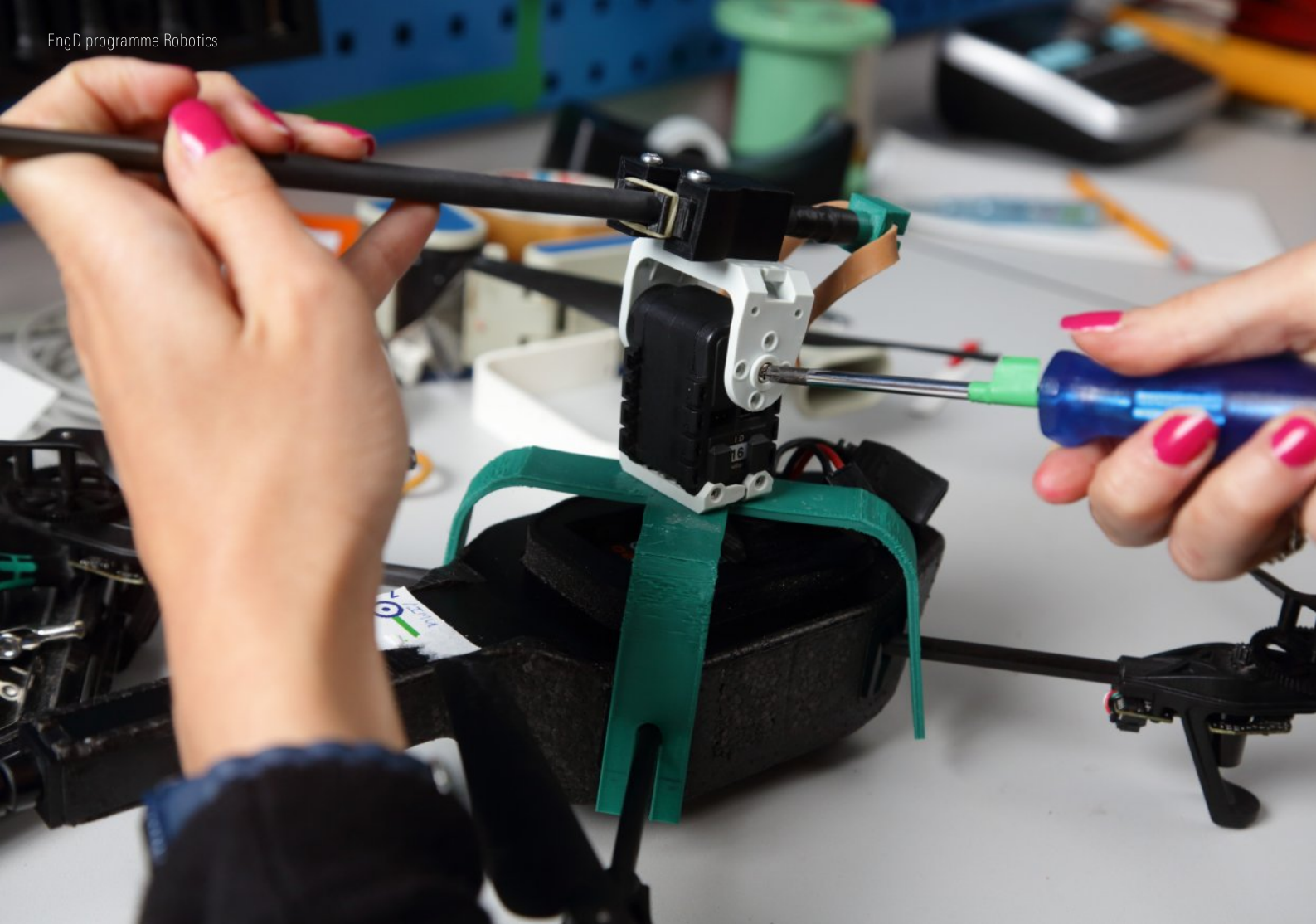
- A short curriculum vitae (1 A4 page max);
- A letter of motivation (1 A4 page max)
- Your grade point average from your master's programme;
- The grade of the final assignment from your master's programme;
- A transcript of your master's courses (including grades).

A EngD selection committee is responsible for admitting new students to the programme.



"I consciously chose the EngD because a PhD was too science-driven.; I'd rather work at a high level for a company on a great assignment. Through my master project I actually got familiar with the EngD. During my Master's pr"

- Jan de Jong -



THE UNIVERSITY OF TWENTE

High tech, human touch. That is the University of Twente, located centrally in Europe in the east of the Netherlands in the city Enschede. The University of Twente is where talent can best realise its full potential. Students and staff are the key. Together, 3300 scientists and professionals carry out ground-breaking research, bring about socially relevant innovation, and provide inspiring teaching for more than 9000 students. To us, entrepreneurship comes as second nature. The campus is home to around 100 businesses, including student-run businesses. The University of Twente has also generated more than 700 successful spin-off companies. The university's business park, Kennispark Twente, encourages and assists entrepreneurs to start new companies. But there's so much more than that happening on our wonderful, green campus. Our sports and cultural facilities are unique and we host events such as the world's largest student think tank, Create Tomorrow.

ENG D, AN INITIATIVE OF THE 4TU FEDERATION

Hundreds of companies have already had good experiences with the EngD programmes that are offered at the four universities of technology in Netherlands. The universities of Delft, Eindhoven, Twente and Wageningen are responsible for the post-master's design programmes offered under the auspices of the Stan Ackermans Institute, 4TU School for Technological Design. For more information: **www.4tu.nl/sai**

INFORMATION ABOUT THE PROGRAMME

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GENERAL INFORMATION

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